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NEWS	4	Feb 16	TOXLINE no longer being updated
NEWS	5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS	6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS	7	May 07	DGENE Reload
NEWS	8	Jun 20	Published patent applications (A1) are now in USPATFULL
NEWS	9	JUL 13	New SDI alert frequency now available in Derwent's DWPI and DPCI

NEWS EXPRESS	July 11 CURRENT WINDOWS VERSION IS V6.0b, CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP), AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001
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=> s channel-forming peptides
L1 152 CHANNEL-FORMING PEPTIDES

=> s antimicrobial peptides
L2 2741 ANTIMICROBIAL PEPTIDES

=> s peptide antibiotics
L3 1662 PEPTIDE ANTIBIOTICS

=> s (l1 or l2 or l3) and vector
L4 40 (L1 OR L2 OR L3) AND VECTOR

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DUPLICATE PREFERENCE IS 'MEDLINE, BIOSIS, CAPLUS, EMBASE'
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L5 28 DUPLICATE REMOVE L4 (12 DUPLICATES REMOVED)

=> s l5 and 1980-1995/py
2 FILES SEARCHED...
L6 5 L5 AND 1980-1995/PY

=> d l6 all,1-5

L6 ANSWER 1 OF 5 MEDLINE
AN 92215557 MEDLINE
DN 92215557 PubMed ID: 1368016
TI Extracellular production system of heterologous peptide driven by a secretory protease inhibitor of Streptomyces.
AU Taguchi S; Maeno M; Momose H
CS Department of Biological Science and Technology, Science University of Tokyo, Japan.
SO APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, **(1992 Mar)** 36 (6) 749-53.
Journal code: AMC; 8406612. ISSN: 0175-7598.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS B
EM 199205
ED Entered STN: 19950809
Last Updated on STN: 19950809
Entered Medline: 19920513
AB The value of a heterologous peptide extracellular production system in Streptomyces using a secretory protease inhibitor, was examined. DNA was synthesized encoding apidaecin 1b (AP1), an interesting antibacterial peptide discovered in lymph fluid of the honeybee, and was joined to the Streptomyces subtilisin inhibitor (SSI) gene via a 12-bp nucleotide sequence corresponding to the amino acid sequence specific for cleavage by
blood coagulation factor Xa. The fusion protein (SSI-AP1) could be expressed and excreted efficiently into the medium by culturing S.

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lividans 66 harbouring a plasmid **vector** constructed for SSI secretion, into which the synthetic DNA was introduced. Sodium dodecyl sulphate-polyacrylamide gel electrophoresis and amino acid analysis of the purified SSI-AP1 provided reasonable results of molecular size and composition value. Interestingly, SSI-AP1 protein showed bifunctional activity: inhibitory activity of SSI and antibacterial activity of AP1. The inhibitory activity against Escherichia coli could be also detected after the fusion protein was cleaved by factor Xa. The extracellular production system presented here should provide a useful tool for production, analysis of mode of action, and also for genetic improvement of **antimicrobial peptides** such as apidaecin.

CT Check Tags: Animal; Support, Non-U.S. Gov't
Amino Acid Sequence
Anti-Infective Agents: ME, metabolism
Bacterial Proteins: GE, genetics
Bacterial Proteins: ME, metabolism
Base Sequence
Bees: GE, genetics
DNA, Bacterial: GE, genetics
Molecular Sequence Data
*Peptides: BI, biosynthesis
Peptides: GE, genetics
*Protease Inhibitors: ME, metabolism
Recombinant Fusion Proteins: BI, biosynthesis
Recombinant Fusion Proteins: GE, genetics
Streptomyces: GE, genetics
*Streptomyces: ME, metabolism

RN 123997-21-7 (apidaecin)

CN 0 (Anti-Infective Agents); 0 (Bacterial Proteins); 0 (DNA, Bacterial); 0 (Peptides); 0 (Protease Inhibitors); 0 (Recombinant Fusion Proteins); 0 (Streptomyces subtilisin inhibitor)

L6 ANSWER 2 OF 5 MEDLINE

AN 90094252 MEDLINE

DN 90094252 PubMed ID: 2152912

TI mprA, an Escherichia coli gene that reduces growth-phase-dependent synthesis of microcins B17 and C7 and blocks osmoinduction of proU when cloned on a high-copy-number plasmid.

AU del Castillo I; Gomez J M; Moreno F

CS Unidad de Genetica Molecular, Hospital Ramon y Cajal, Madrid, Spain.

SO JOURNAL OF BACTERIOLOGY, **(1990 Jan)** 172 (1) 437-45.
Journal code: HH3; 2985120R. ISSN: 0021-9193.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199002

ED Entered STN: 19900328
Last Updated on STN: 19900328
Entered Medline: 19900208

AB Microcins B17 and C7 are plasmid-determined, **peptide antibiotics** produced by Escherichia coli when cells enter the stationary phase of growth. Microcinogenic strains are immune to the action of the microcin they synthesize. A well-characterized deficient-immunity phenotype is exhibited by microcin B17-producing cells in the absence of the immunity gene mcbG (M.C. Garrido, M. Herrero, R. Kolter, and F. Moreno, EMBO J. 7:1853-1862, 1988). A 14.6-kilobase-pair

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EcoRI chromosomal fragment was isolated by its ability to suppress this phenotype when cloned into a multicopy **vector**. This fragment was mapped to 57.5 min on the E. coli genetic map. The position of the gene responsible for suppression, designated mprA, was determined by insertional mutagenesis and deletion analysis. mprA was shown to be transcribed clockwise on the E. coli chromosome, and its product was identified as a 19-kilodalton polypeptide. Suppression was shown to be achieved by decreasing microcin B17 production. Increased mprA gene dosage also caused a decrease in microcin C7 production and blocked the osmoinduction of the proU locus in high-osmolarity media. Our results suggest that the mprA gene product could play a regulatory role on expression of several E. coli genes, this control being exerted at the transcriptional level.

CT Check Tags: Support, Non-U.S. Gov't
*Antibiotics: BI, biosynthesis
Bacterial Proteins: AN, analysis
*Bacteriocins: BI, biosynthesis
*Cloning, Molecular
*Escherichia coli: GE, genetics
Gene Expression Regulation, Bacterial
*Genes, Bacterial
*Genes, Regulator
Immune Tolerance
*Operon
Osmolar Concentration
*Plasmids
Suppression, Genetic
Transcription, Genetic
RN 1403-96-9 (microcin)
CN 0 (Antibiotics); 0 (Bacterial Proteins); 0 (Bacteriocins); 0 (Plasmids)

L6 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1995:509690 BIOSIS
DN PREV199598514740
TI Influences on the antimicrobial activity of surface-adsorbed nisin.
AU Bower, C. K.; McGuire, J.; Daeschel, M. A. (1)
CS (1) Dep. Food Science Technol., Orgon State Univ., Wiegand Hall 100, Corvallis, OR 97331-6602 USA
SO Journal of Industrial Microbiology, (1995) Vol. 15, No. 3, pp. 227-233. ISSN: 0169-4146.
DT Article
LA English
AB The efficacy of the antimicrobial peptide nisin was examined after adsorption to silica surfaces. Three protocols were used to evaluate nisin's activity against adhered cells of Listeria monocytogenes: bioassay using Pediococcus pentosaceous FBB 61-2 as the sensitive indicator strain; visualization and enumeration of cells by microscopic image analysis; and viability of adhered cells as determined by Iodonitrotetrazolium violet uptake and crystallization. The activity of adsorbed nisin was highly dependent upon conditions of adsorption. The highest antimicrobial activity of adsorbed nisin occurred with high concentrations of nisin (1.0 mg ml-1) and brief contact times (1 h) on surfaces of low hydrophobicity. Sequential adsorption of a second protein (beta-lactoglobulin or bovine serum albumin) onto surfaces consistently resulted in decreased nisin

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activity. These data provide direction for the development of applications to limit microbial attachment on food contact surfaces through the use of adsorbed **antimicrobial peptides**.

CC Microscopy Techniques - General and Special Techniques *01052
Comparative Biochemistry, General *10010
Biochemical Methods - General *10050
Biochemical Methods - Proteins, Peptides and Amino Acids *10054
Biochemical Studies - General *10060
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Biochemical Studies - Minerals *10069
Biophysics - General Biophysical Studies *10502
Biophysics - General Biophysical Techniques *10504
Biophysics - Molecular Properties and Macromolecules *10506
Food Technology - General; Methods *13502
Food Technology - Preparation, Processing and Storage *13532
Toxicology - Foods, Food Residues, Additives and Preservatives *22502
Morphology and Cytology of Bacteria *30500
Physiology and Biochemistry of Bacteria *31000
Microbiological Apparatus, Methods and Media *32000
Public Health - Public Health Laboratory Methods *37006
Public Health: Disease Vectors - Inanimate *37060
Public Health: Microbiology *37400
Chemotherapy - Antibacterial Agents *38504
Food and Industrial Microbiology - Food and Beverage Spoilage and Contamination *39002
Disinfection, Disinfectants and Sterilization *39500

BC Regular Nonsporing Gram-Positive Rods 07830
Hominidae *86215

IT Major Concepts
Biochemistry and Molecular Biophysics; Cell Biology; Foods; Methods and Techniques; Pharmacology; Physiology; Public Health (Allied Medical Sciences); Toxicology; **Vector** Biology

IT Chemicals & Biochemicals
NISIN

IT Miscellaneous Descriptors
ADHERED CELLS; ANTIBIOTICS; **ANTIMICROBIAL PEPTIDES**; BIOFILMS; CELL VIABILITY; FOOD CONTACT SURFACES; FOOD CONTAMINATION; HUMAN PATHOGEN; METHODS

ORGN Super Taxa
Bacteria - General Unspecified: Eubacteria, Bacteria; Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia; Regular Nonsporing Gram-Positive Rods: Eubacteria, Bacteria

ORGN Organism Name
bacteria (Bacteria - General Unspecified); microorganism (Microorganisms - Unspecified); regular nonsporing gram-positive rods (Regular Nonsporing Gram-Positive Rods); Hominidae (Hominidae); Listeria monocytogenes (Regular Nonsporing Gram-Positive Rods)

ORGN Organism Superterms
animals; bacteria; chordates; eubacteria; humans; mammals; microorganisms; primates; vertebrates

RN 1414-45-5 (NISIN)

L6 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1990:108832 BIOSIS
DN BA89:58323
TI MPR-A AN ESCHERICHIA-COLI GENE THAT REDUCES GROWTH-PHASE-DEPENDENT

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SYNTHESIS OF MICROCINS B17 AND C7 AND BLOCKS OSMOINDUCTION OF PRO-U WHEN CLONED ON A HIGH-COPY-NUMBER PLASMID.

AU DEL CASTILLO I; GOMEZ J M; MORENO F

CS UNIDAD DE GENETICA MOL., HOSP. RAMON Y CAJAL, CARRETERA DE COLMENAR KM 9,100, MADRID 28034, SPAIN.

SO J BACTERIOL, (1989) 72 (1), 437-445.
CODEN: JOBAAY. ISSN: 0021-9193.

FS BA; OLD

LA English

AB Microcins B17 and C7 are plasmid-determined, **peptide antibiotics** produced by Escherichia coli when cells enter the stationary phase of growth. Microcinogenic strains are immune to the action of the microcin they synthesize. A well-characterized deficient-immunity phenotype is exhibited by microcin B17-producing cells in the absence of the immunity gene mcbG (M. C. Garrido, M. Herrero, R. Kolter, and F. Moreno, EMBO J. 7:1853-1862, 1988). A 14.6-kilobase-pair EcoRI chromosomal fragment was isolated by its ability to suppress this phenotype when cloned into a multicopy **vector**. This fragment was mapped to 57.5 min on the E. coli genetic map. The position of the gene responsible for suppression, designated mprA, was determined by insertional mutagenesis and deletion analysis. mprA was shown to be transcribed clockwise on the E. coli chromosome, and its product was identified as a 19-kilodalton polypeptide. Suppression was shown to be achieved by decreasing microcin B17 production. Increased mprA gene dosage also caused a decrease in microcin C7 production and blocked the osmoinduction of the proU locus in high-osmolality media. Our results suggest that the mprA gene product could play a regulatory role on expression of several E. coli genes, this control being exerted at the transcriptional level.

CC Biochemical Studies - Nucleic Acids, Purines and Pyrimidines *10062
Biochemical Studies - Proteins, Peptides and Amino Acids 10064
Replication, Transcription, Translation *10300
Biophysics - Molecular Properties and Macromolecules *10506
Biophysics - Membrane Phenomena 10508
Metabolism - Proteins, Peptides and Amino Acids *13012
Metabolism - Nucleic Acids, Purines and Pyrimidines *13014
Physiology and Biochemistry of Bacteria *31000
Genetics of Bacteria and Viruses *31500

BC Enterobacteriaceae 04810

IT Miscellaneous Descriptors
MAP POSITION TRANSCRIPTION DIRECTION TRANSCRIPTION REGULATOR

RN 73904-91-3D (MICROCINS)

L6 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1985:90590 CAPLUS

DN 102:90590

TI Plasmids and other vectors as tools in gene manipulation, with special emphasis on preparation of medically important substances

AU Delappe, I. P.

CS Mol. Microbiol. Parasitol. Branch, Natl. Inst. Allergy Infect. Dis., Bethesda, MD, USA

SO Transferable Antibiot. Resist., Int. Symp. Antibiot. Resist. Plasmids, 5th
(**1984**), Meeting Date 1983, 21-33. Editor(s): Mitsuhashi, Susumu; Krcmery, V. Publisher: Avicenum, Prague, Czech.
CODEN: 53CNAX

DT Conference; General Review

LA English

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CC 3-0 (Biochemical Genetics)
Section cross-reference(s): 1
AB A review with 47 refs. on mol. cloning of genes for medically important substances, including insulin [9004-10-8], somatostatin [51110-01-1], somatotropin [9002-72-6], interferon, relaxin [9002-69-1], vitamins, lymphokines (immune regulatory), factor VIII [9001-27-8] (antihemophilic agent), tissue plasminogen activator [9001-91-6] and urokinase [9039-53-6] (both are thrombolytic agents), endorphin [60118-07-2] (a morphine-like **peptide**), **antibiotics** and vaccines.
Vectors for cloning such as plasmids, cosmids, and phage .lambda. are also
discussed.
ST review gene cloning **vector**; plasmid gene cloning review; cosmid gene cloning review; phage gene cloning review
IT Plasmid and Episome
(as gene cloning **vector**, in pharmaceuticals prepn.)
IT Antibiotics
Interferons
Lymphokines and Cytokines
Vitamins
RL: BIOL (Biological study)
(gene for, cloning of, vectors for)
IT Genetic engineering
(in pharmaceutical prodn.)
IT Vaccines
(mol. cloning in prodn. of, vectors for)
IT Molecular cloning
(vectors for, in pharmaceutical prodn.)
IT Plasmid and Episome
(cosmid, as gene cloning **vector**, in pharmaceuticals prepn.)
IT Virus, bacterial
(lambda, as gene cloning **vector**, in pharmaceuticals prepn.)
IT 9001-91-6
RL: BIOL (Biological study)
(activator for, gene for, cloning of, vectors for)
IT 9001-27-8 9002-69-1 9002-72-6 9004-10-8, biological studies
9039-53-6 51110-01-1 60118-07-2
RL: BIOL (Biological study)
(gene for, cloning of, vectors for)

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